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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/582,700

08/21/00

MARAIS

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23800

QM22/0604

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EXAMINER

BUMGARNER, M

ART UNIT

PAPER NUMBER

3732

*6*

DATE MAILED:

06/04/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.  
09/582,700

Applicant(s)  
Marais

Examiner  
Melba Bumgarner

Art Unit  
3732



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1) ☒ Responsive to communication(s) filed on Aug 21, 2000

2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

## Disposition of Claims

4) ☒ Claim(s) 1-10 is/are pending in the application.

4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) ☒ Claim(s) 9 and 10 is/are allowed.

6) ☒ Claim(s) 1-8 is/are rejected.

7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirements.

## Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☒ All b) ☐ Some\* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)

19) ☐ Notice of Informal Patent Application (PTO-152)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_

20) ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

### *Specification*

1. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1, 2, 4, 5, and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, the preamble appears like a method of use claim; however, the claim does not contain any step limitations. For examination on the merits of this claim, it has been treated as a product claim for the aqueous solution. In claim 2, it is not clear as to whether there are two solutions. The limitation "the anion-containing and the cation-containing solution" in claim 4, the limitation "the anion-containing solution" in claim 5 and the limitation "the cation-containing solution" in claim 7 lack antecedent basis.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Hayashi et al. Hayashi et al. disclose an irrigating medium comprising an electro-chemically activated, aqueous saline solution (column 1). Patentable weight is not given to its intended use for irrigating root canals.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi et al. in view of Malchesky (5,932,171). Hayashi et al. disclose an aqueous solution that shows the limitations as described above; however, they do not show the solution including anion-containing solution and cation-containing solution. Malchesky teaches an aqueous solution of salt including anion-containing solution and cation-containing solution (column 2 lines 19-41). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the aqueous solution of Hayashi et al. to have anion-containing solution and cation-containing solution. One would be motivated to make such a modification to utilize the cation-containing solution for cleansing and the anion-containing solution for antimicrobial rinsing as taught by

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Malchesky. As to claim 4, it is an obvious matter of choice as to the process by which the solutions are produced, because a product claim is properly met if the final product is shown.

8. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi et al. in view of Komatu et al. (6,231,878). Hayashi et al. disclose an aqueous solution that shows the limitations as described above; however, they do not show the anion-containing solution produced from 10% aqueous NaCl solution and having high redox potential of up to about +1170 mV. Komatu et al. teach anodic electrolytic solution produced from aqueous NaCl solution and having a high redox potential of at least +1050 mV. It is held to be an obvious matter of choice to one of ordinary skill in the art as to the concentration of the aqueous solution of salt and the value of redox potential. The specific concentration of salt in the water to be treated and specific value of redox potential are not critical to the claimed invention. It is known in the art that anodic electrolytic solution is acidic and has a high redox potential, and cathodic electrolytic solution is alkaline and has a low redox potential. As to claims 6 and 7, it is an obvious matter of choice to one of ordinary skill in the art as to the specific range of pH and redox potential value.

***Allowable Subject Matter***

9. Claims 9 and 10 are allowed.

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Winston et al. (6,159,448) and Rasmussen (3,996,126) are cited to show the state of the art with respect to oral electrolyzed solutions.

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11. Any inquiry concerning this communication from the examiner should be directed to Melba Bumgarner whose telephone number is (703) 305-0740.

*Melba Bumgarner*

Melba Bumgarner  
FAX Number (703) 308-2708

*John J. Wilson*  
John J. Wilson  
Primary Examiner